

REMARKS**Summary of the Office Action**

Claims 1-4, 7, 8, 11-15, 17-19 and 21-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,445,900 to Fukao et al. ("Fukao") in view of U.S. Patent No. 5,585,598 to Kasahara et al. ("Kasahara").

Claims 5, 6 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukao in view of Kasahara, and further in view of U.S. Patent No. 6,072,976 to Kuriyama et al. ("Kuriyama") and U.S. Patent No. 6,760,564 to Oohara et al. ("Oohara").

Claims 9 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukao in view of Kasahara, and further in view of Kuriyama.

Summary of the Response to the Office Action

Applicants have amended claims 1, 8, 14, 19, 22, 25 and 26.

Claims 1-19 and 21-28 are pending.

All Claims Define Allowable Subject Matter

Claims 1-4, 7, 8, 11-15, 17-19 and 21-28 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukao in view of Kasahara. Applicants respectfully traverse the rejection under 35 U.S.C. § 103(a). Applicants have amended claims 1, 8, 14, 19, 22, 25 and 26 to particularly point out and distinctly claim Applicants' invention.

Claim 1 recites an image forming apparatus, including a first contacting unit having a positioning member that contacts an image carrier and exerts a force on the image carrier in a direction that is normal to the first contacting unit and the image carrier, and a second contacting unit that contacts the image carrier in a wrap shape. The normal direction intersects the wrap-shaped contact range. Thus, the invention provides for example, a positioning member, such as a tracking roller 52, that counteracts against the force of a second contacting unit, such as an intermediate transfer belt 15, so that a photosensitive drum 11 does not have a rotational eccentricity while a plurality of developing rollers 51 transport toner to the photosensitive drum 11. Support for these features is provided at, for example, page 25, ll. 9-11; page 26, ll. 13-16; page 28, ll. 3-5 and ll. 17-24; and Figs. 2, 3A and 3B.

As shown in Fig. 2 and described at col. 3, line 58 – col. 4, line 6 of Fukao, a revolver type development unit 400 includes developing devices 401-404. Because developing devices 401-404 have curved outer surfaces, and because photosensitive drum 100 has a curved outer surface, contact between any one of the developing devices 401-404 and photosensitive drum 100 is in a direction that is normal to the surface of photosensitive drum 100 (Please see Exhibit A attached hereto, including Fig. 2 of Fukao which is annotated with a dashed line to illustrate such a normal direction). An extension in the normal direction does not intersect the wrap-shaped contact of intermediate transfer belt 501 with the photosensitive drum 100. Accordingly, Applicants submit that Fukao does not teach or suggest a positioning member that contacts an image carrier and exerts a force on the image carrier in a direction that is normal to the first contacting unit and the image carrier, and a second contacting unit that contacts the image carrier in a wrap shape, such that the normal direction intersects the wrap-shaped contact range, as

recited in claim 1. Applicants submit that Kasahara similarly does not teach or suggest this feature, and thus fails to overcome the above-described deficiencies of Fukao. Claims 2-4 and 7 depend from claim 1 and recite the same combination of allowable features recited in claim 1, as well as additional features that define over the prior art.

Claim 8 recites an image forming apparatus, including a developing device having a positioning member which abuts against an image carrier and exerts a force on the image carrier in a direction that intersects an abutting range between an intermediate transfer member and the image carrier. As described above, contact between any one of the developing devices 401-404 and photosensitive drum 100 of Fukao is in a direction that is normal to the surface of photosensitive drum 100. An extension of such a normal direction does not intersect the wrap-shaped contact of intermediate transfer belt 501 with the photosensitive drum 100. Accordingly, Applicants submit that Fukao does not teach or suggest a developing device having a positioning member which abuts against an image carrier and exerts a force on the image carrier in a direction that intersects an abutting range between an intermediate transfer member and the image carrier, as recited in claim 8. Applicants submit that Kasahara similarly fails to overcome the deficiencies of Fukao. Claims 11-13 depend from claim 8 and recite the same combination of allowable features recited in claim 8, as well as additional features that define over the prior art.

Claim 14 recites an image forming apparatus, including a positioning member that exerts a force on an image carrier in a direction through a contact point of an intermediate transfer member with the image carrier, and through a center of the image carrier. Applicants submit that neither Fukao nor Kasahara teaches or suggests a positioning member that exerts a force on an

image carrier in a direction through a contact point of an intermediate transfer member with the image carrier, and through a center of the image carrier, as recited in claim 14. Claims 15 and 17-18 depend from claim 14 and recite the same combination of allowable features recited in claim 14, as well as additional features that define over the prior art.

Claim 19 recites an image forming apparatus, including an extension of a line which connects a center of an image carrier to a center of a desirable developing roller located opposite to the image carrier that is positioned within a range where a transferring unit abuts against the image carrier in a wrap shape. Applicants submit that neither Fukao nor Kasahara teaches or suggests an extension of a line which connects a center of an image carrier to a center of a desirable developing roller located opposite to the image carrier that is positioned within a range where a transferring unit abuts against the image carrier in a wrap shape, as recited in claim 19. Claim 21 depends from claim 19 and recites the same combination of allowable features recited in claim 19, as well as additional features that define over the prior art.

Claim 22 recites an image forming apparatus, including a member that abuts against an image carrier and exerts a force on the image carrier in a direction that intersects a range where the transferring unit abuts against the image carrier in a wrap shape. Applicants submit that neither Fukao nor Kasahara teaches or suggests a member that abuts against an image carrier and exerts a force on the image carrier in a direction that intersects a range where the transferring unit abuts against the image carrier in a wrap shape, as recited in claim 22. Claims 23-24 depend from claim 22 and recite the same combination of allowable features recited in claim 22, as well as additional features that define over the prior art.

Claim 25 recites an image forming apparatus, wherein in a developing unit, when a desirable developing agent carrier is separated from the developing position, a predetermined member is separated from the image carrier along a line that intersects a range where a transferring unit abuts against the image carrier in a wrap shape. Applicants submit that neither Fukao nor Kasahara teaches or suggests in a developing unit, when a desirable developing agent carrier is separated from the developing position, a predetermined member is separated from the image carrier along a line that intersects a range where a transferring unit abuts against the image carrier in a wrap shape, as recited in claim 25.

Claim 26 recites a method of holding an image carrier, including abutting a positioning member with respect to a pivotally rotated image carrier in a predetermined direction through a center shaft of the image carrier so as to depress the image carrier, depressing the image carrier via the center shaft of the image carrier with a force in a direction opposite to the predetermined direction, and stably holding the image carrier based upon both the depression made in the predetermined direction and the depression made in the direction opposite to the predetermined direction. Applicants submit that neither Fukao nor Kasahara teaches or suggests the method of holding an image carrier, as recited in claim 26. Claims 27-28 depend from claim 26 and recite the same combination of allowable features recited in claim 26, as well as additional features that define over the prior art.

Accordingly, it is requested that the rejection under 35 U.S.C. § 103(a), of claims 1-4, 7, 8, 11-15, 17-19 and 21-28, be withdrawn.

Claims 5, 6 and 10 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukao in view of Kasahara, and further in view of Kuriyama and Oohara. Claims 5 and 6

depend from claim 1, and claim 10 depends from claim 8. The dependent claims recite the same combination of allowable features recited in the respective independent claims, as well as additional features that define over the prior art. Applicants submit that neither Kuriyama nor Oohara overcomes the above-described deficiencies of Fukao and Kasahara. Accordingly, it is requested that the rejection under 35 U.S.C. § 103(a), of claims 5, 6 and 10, be withdrawn.

Claims 9 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Fukao in view of Kasahara, and further in view of Kuriyama. Claim 9 depends from claim 8, and claim 16 depends from claim 14. The dependent claims recite the same combination of allowable features recited in the respective independent claims, as well as additional features that define over the prior art. Applicants submit that Kuriyama fails to overcome the above-described deficiencies of Fukao and Kasahara. Accordingly, it is requested that the rejection under 35 U.S.C. § 103(a), of claims 9 and 16, be withdrawn.

CONCLUSION

In view of the foregoing, Applicants respectfully request consideration and the timely allowance of the pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this Amendment, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

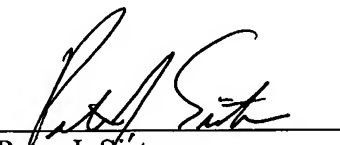
If there are any other fees due in connection with the filing of this Amendment, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: June 28, 2005

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FIG. 2

